

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No.: 10/622,551

Attorney Docket No.: Q76624

**AMENDMENTS TO THE DRAWINGS**

Applicant submits herewith one replacement sheet of drawings.

Attachment: 1 Replacement Sheet

**REMARKS**

Claims 1-10 have been examined and have been rejected under 35 U.S.C. § 112, second paragraph, and claims 1-3 and 6 have been rejected under 35 U.S.C. § 102(b). Also, the Examiner has indicated that claims 4, 5 and 7-10 contain allowable subject matter.

**I. Preliminary Matters**

The Examiner has objected to Figure 5. The Examiner maintains that element 20 should be shown as a switch instead of an XOR gate. Applicant submits, however, that element 20 is not an XOR gate. As specifically disclosed in the non-limiting embodiment on page 12, line 12 to page 13, line 20, outputs from the first and second short block coding 12,16 are sent as inputs to the linear combiner 18. The linear combiner 18 produces a redundancy part which is added, via **adder** 20, to the data frame proper to obtain a desired code. Accordingly, Applicant has amended Figure 5 to properly depict the claimed “adder.”

The Examiner has objected to the Abstract and specification due to minor informalities. Accordingly, Applicant has amended the Abstract and specification in a manner believed to overcome the objection. The amendments should not be construed to limit the scope of the claims. Further the amendments are made for precision of language, as requested by the Examiner. The amendments are not made in view of the prior art, and no new matter has been added.

A few of the suggested changes have not been adopted since they are not believed to be necessary to a proper understanding, to one skilled in the art, of the invention. In regard to the

objection of page 8, lines 23-24, Applicant submits that the disclosure following the cited portion clarifies the feature.

## **II. Rejections under 35 U.S.C. § 112, second paragraph**

The Examiner has rejected claims 1-10 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Accordingly, the Applicant has amended the claims in a manner believed to overcome the rejection.

In regard to claim 4, the Examiner requested that “permutation between columns” be amended to recite “permutation of column.” However, as set forth in the non-limiting embodiment on page 8, lines 16-21, a permutation between columns consists of exchanging the columns of symbols A with the columns of symbols B, and thus, a permutation between columns. Accordingly, Applicant submits that the recitation is not indefinite.

## **III. Rejections under 35 U.S.C. § 102(b)**

The Examiner has rejected claims 1-3 and 6 under 35 U.S.C. § 102(b) in view of U.S. Patent No. 4,569,051 to Wilkinson (“Wilkinson”).

Applicant submits that claim 1 is patentable over the cited reference. For example, claim 1 recites interleaving the frame of information symbols and redundancy symbols, using

permutation of the elements within the columns, such that rows of information symbols and redundancy symbols produced from the permuted columns form second code words.

On page 8 of the Office Action, the Examiner maintains that “if” the positions of bits within each of the columns of Wilkinson’s array is permuted, each of the resulting rows can be said to form a second code word. However, such “if” does not provide proper anticipation under 35 U.S.C. § 102(b). Applicant submits that Wilkinson does not teach or suggest the interleaving using permutation of elements within the columns. Accordingly, for clarification, Applicant has amended claim 1 to more positively recite the step of interleaving using permutation of elements within columns.

In view of the above, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claim 1.

Since claims 2, 3 and 6 are dependent upon claim 1, Applicant submits that such claims are patentable at least by virtue of their dependency. In addition, Wilkinson fails to teach or suggest permutation where each column is rotated by a number of elements equal to a progressive number of the column itself less one, as set forth in claim 3.

#### **IV. Allowable Subject Matter**

As stated above, the Examiner has indicated that claims 4, 5 and 7-10 contain allowable subject matter.

**V. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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